Product Reviews continued from page 146

communications hardware review

VOMAX 2000

Manufactured By: Macronix
List Price: $425
Reviewed By: Woody Liswood

Vomax, which I speculate stands for VOice—Modem—fAX, all by itself, answers your phone, determines if the call is a voice message, a modem with a file to send, or a fax. Whatever it is, the Vomax takes the information and stores it in internal RAM.

When you are at your computer, you can listen to messages by pressing a button on the Vomax. A set of LEDs tells you if you have mail or faxes. For a fax, you can use DOS- or Windows-based software to download the fax to your PC to view or print.

When you are on the road, the Vomax can be programmed to automatically forward your voice mail and faxes. After receiving the message or fax, the Vomax dials the phone number you programmed in. When it receives the correct password, it plays the voice mail or transmits the fax. If you don't know where you will be, no sweat. The Vomax can be reprogrammed over the telephone.

The 14,400 fax modem is Hayes compatible. I'd had no problems using it with Winfax Pro, Hyper Access for Windows, Procomm Plus for Windows, and Unicom. The Vomax comes with both modem and fax modem software.

If you have an office, and want to watch your expenses, this Vomax will pay for itself rather quickly because of reduced utility bills—you no longer need to leave your computer running twenty-four hours a day to receive a fax. Plus, if you are pressed for finding another slot for an internal fax modem the Vomax offers a solution. It uses a serial port. This is a great device. (Macronix, Inc., 1348 Ridder Park Dr., San Jose, CA 95131. 408/453-8088)

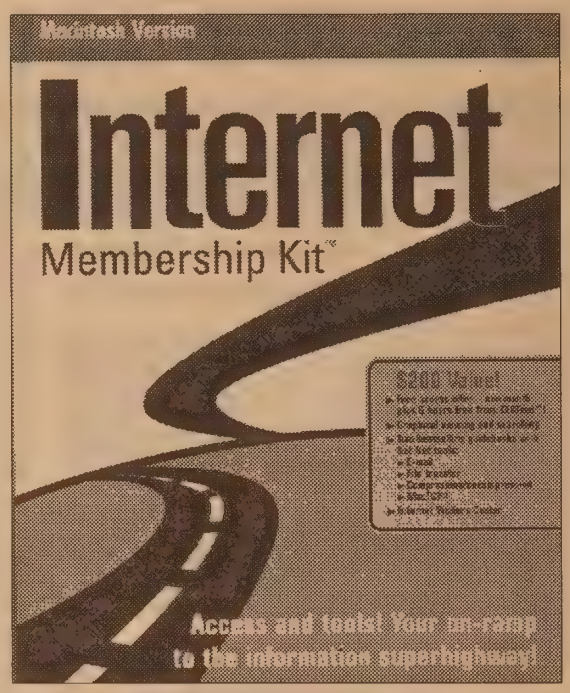
book reviews

INTERNET MEMBERSHIP KIT—MACINTOSH VERSION

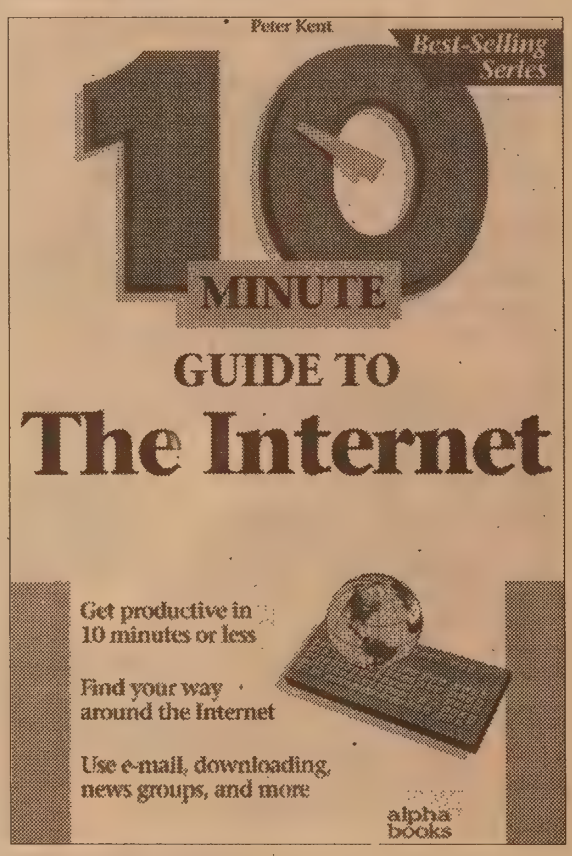
Published By: Ventana Press
List Price: $69.95 (Windows version also available)
Reviewed By: Michael Robin

Being "Directly On The Internet" is different than connecting to cyberspace through a dial-up account on CompuServe, America Online, The WELL, or even your local Internet provider. While each of these online services provides some level of access to the Internet—from simply exchanging email to accessing many of the resources available on the Internet—the actual connection is still somewhat limited.

In overly simplified terms, "directly on the Internet" means working from a computer that has a live, direct connection that lets you run—on your computer, not the host that you dial into—TCP/IP-based software. For most of us who are not associated with a research institution, university, or large corporation that has a dedicated, leased line to the net, this means establishing a SLIP (Serial Line Internet Protocol) or PPP (Point-to-Point Protocol) account with an Internet Service Provider (such as Netcom, Delphi, PSI, or CCnet).



INTERNET MEMBERSHIP KIT



10 MINUTE GUIDE TO THE INTERNET

The Internet Membership Kit, a book and software package, was created "to help you harness the Net by providing one-stop access and tools that conform to your Macintosh operating system." The book describes what the Internet is, what you can do on it, and how to use the resources and tools you will find there. More specifically, the *Kit* includes a *Read Me First* booklet; *A Brief Guide to Mosaic*; *The Mac Internet Tour Guide*, with a Companion Disk; and *The Internet Yellow Pages*.

The *Tour Guide* presents a brief history of the Internet, provides a general overview of Internet etiquette and usage, and how to use the basic Internet software tools, including email, FTP, gopher, and telnet. The *Yellow Pages* nicely complements this with a wealth of information about what is on the Internet and where to find it.

The Companion Disk includes shareware versions of InterSLIP, for establishing a SLIP connection; Eudora, for email; Fetch, for FTP; NCSA Telnet; Nuntius, a newsgroup reader; TurboGopher; and a licensed copy of MacTCP. There is also information on where and how to download a recent version of NCSA Mosaic, which lets users cruise the Web.

The software is configured for setting up an account with CERFnet. If you already have an account or prefer to use another service, you will need to ask them how to reconfigure MacTCP, InterSLIP, Eudora, and Nuntius. The settings, such as IP and gateway addresses, are specific to each Internet provider.

In the rush to help explain the Internet, there seems to be a new book published almost every month. The *Internet Membership Kit* is one of the very few that combines several books, each written to cover different aspects of the Net, with a suite of software to offer a complete package for the beginner as well as experienced user on the Net. (Ventana Press, Inc., PO Box 2468, Chapel Hill, NC 27515. 1-800-743-5369 or (919)942-0220)

10 MINUTE GUIDE TO THE INTERNET

Published By: Alpha Books
List Price: $12.99
Reviewed By: Kevin Savetz

If you could get productive on the Internet in a few ten-minute lessons, you would, right? That's the hook for the *10 Minute Guide to the Internet*, a terse introduction to what the Internet is, how to get online, and the basics of navigation. It is geared toward users accessing the net by dialing into a UNIX host, and is slanted toward individuals using Microsoft Windows on their home computers.

10 Minute Guide to the Internet does its job and covers the basics of using UNIX, electronic mail, FTP, archie, WAIS, WWW, gopher, telnet, and Usenet. It is divided into twenty "ten-minute" lessons. It is intended for the beginner, and the book does a fair job, considering its brevity.

The first edition certainly has its fair share of typographical errors, some in very unfortuate places. (For instance, the note on how to turn off call

continued on page 165

Product Reviews *continued from page 150*

waiting is rendered useless by an errant numeral.)

A person who is already familiar with computers, Windows, and DOS might find this book a helpful tool in the struggle to master Internet basics. It is, however, too short to serve as a thorough introduction. (Alpha Books, 201 W. 103rd St., Indianapolis, IN 46290. 1-800-428-5331)

COOL MAC SOUNDS

Written By: Craig O'Donnell
Published By: Hayden Books
List Price: $24.95
Reviewed By: Kevin Savetz

If you need to stuff the stocking of someone who spends more time at the Mac tweaking the system's sounds than actually working, stuff that stocking with *Cool Mac Sounds*. It's a 300-ish page book brimming with information about making sound with the Macintosh.

Cool Mac Sounds starts with the basics of sound and how computerized sound works. It quickly moves on to the ins and outs of input and output using control panels, HyperCard, F-Keys, and standalone applications. It covers all the bases, such as digitized sound, MIDI, and recording sounds yourself.

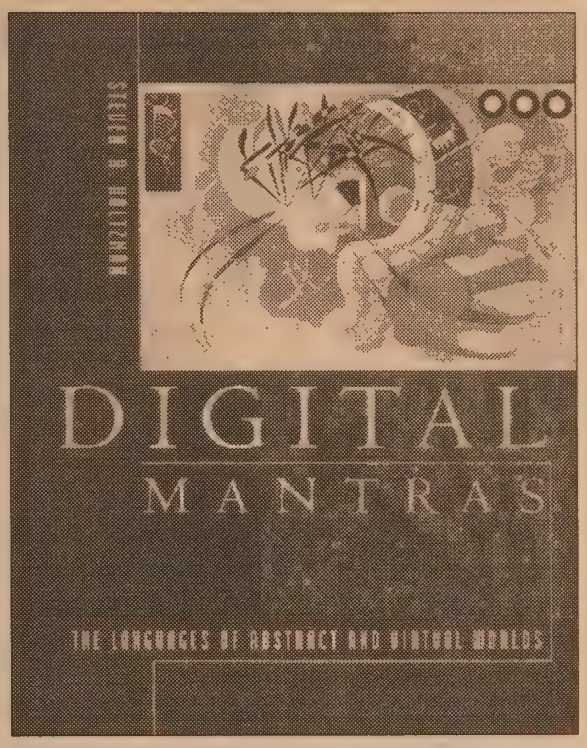
It also includes honest reviews of add-on sound equipment and software. The style is light and readable, although the author does get a bit too technical on occasion.

The book comes bundled with a floppy disk stuffed with audio files: sound utilities and lots of great digitized tracks. The programs and the book range from the useful to the utterly useless. *Cool Mac Sounds* is a winner—you'll be glad you heard about it. (Hayden Books, 201 W. 103rd. St., Indianapolis, IN 46290. 1-800-428-5331. Email: hayden@hayden.com)

DIGITAL MANTRAS

Written By: Steven R. Holtzman
Published By: The MIT Press
List Price: $29.95, companion music CD $16.95
Reviewed By: Pamela Mason

In *Digital Mantras—The Languages of Abstract and*



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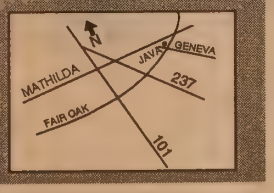

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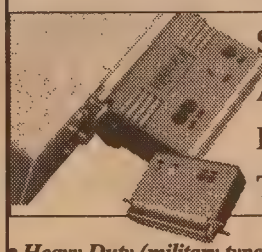
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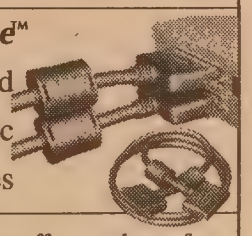

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Product Reviews *continued...*

puter programmer for GoMotion, a fictional company that makes intelligent housekeeping robots, is a perfect patsy for Rucker. Rugby, accused of infecting the worldwide net of computers and television programming with an intelligent, self-replicating virus that appears as ants, loses wife, family, job, and almost his life as he tracks down the secret of the ants and the culprit that set him up for the fall.

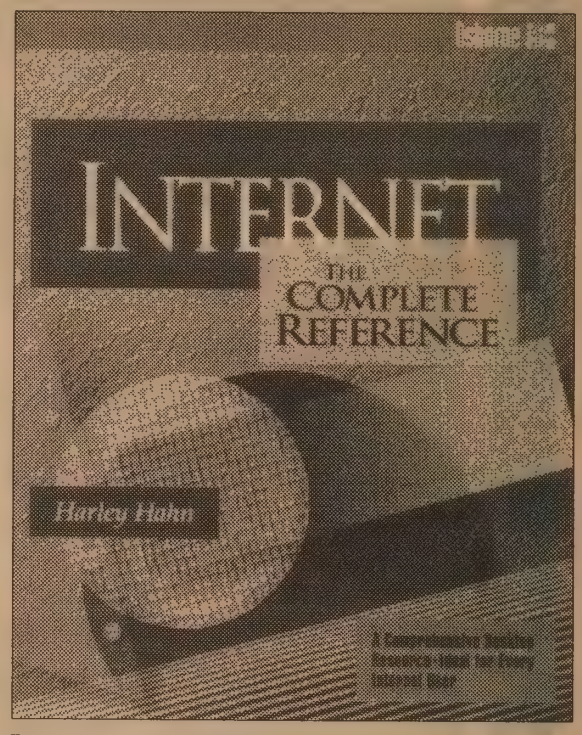
Hacker is full of well-drawn characters and locales including the likes of Riscky Pharbeque, Studly the beta dog, and the Antland of Fnoor. Plus, Rucker's comic entrepreneurial valley setting—where everyone, rich or poor, native or immigrant, is just out to earn a buck anyway they can, like the real estate lady moonlighting as spy and talent agent—pulls the plot along despite Rugby's raging hormones, vulgarity, and officious sounding mysticism.

Breaking the mold, Rucker's geometrically correct if not completely original sketches of cyber-based groupware, virtual mall life, and dark dreams provide an interesting fix on how normal people in Santa Clara County might someday interact with an ubiquitous network. And because he refused to include a streetwise juvenile bike/skateboard messenger Rucker proves he's no slave to current cyberpunk literary fashion. (Avon Books, 1350 Avenue of the Americas, New York, NY 10019. 1-800-238-0658)

THE INTERNET COMPLETE REFERENCE

Authors: Harley Hahn and Rick Stout
Published By: Osborne/McGraw-Hill
List Price: $29.95
Reviewed By: Kevin Savetz

The Internet Complete Reference is a grassroots guide to learning about the Internet. It takes the clueless Internet newbie and leads him or her from the fundamentals—like understanding what the Internet is, how to connect, and how addressing works—through the Internet's most important tools: telnet, email, Usenet, FTP, gopher, WAIS, Internet Relay Chat, and so on. This book doesn't cover any ground that hasn't been trod dozens of



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Product Reviews *continued...*

times before by other everything-you-need-to-know-about-the-Internet books, but it delivers the information in a lively, always interesting manner. No topics are glossed over—the authors do a fine job of explaining how to use software such as archie, rn, trn and tin newsreaders, electronic mail, FTP, and many others. Hahn and Stout never get mired in the dirty technical details, but they do explain what to do and how to avoid trouble.

The Internet Complete Reference is intended for folks who will be accessing the Internet using a UNIX command line prompt. If you will be using SLIP (Serial Line Internet Protocol) or PPP (Point-to-Point Protocol) or a VAX you will still find about half this book useful.

The book also includes a 150-page catalog of Internet resources (which for all the world looks like it was culled from another Hahn and Stout masterpiece, the *Internet Yellow Pages*), a useful listing of Internet service providers, and a list of Usenet discussion groups.

This review boils down to this: If you are just trying to get started on the Internet, but don't know which of fifty step-by-step books in your bookstore you should buy, *The Internet Complete Reference* won't disappoint you. (Osborne/McGraw-Hill, 2600 Tenth St., Berkeley, CA 94710)

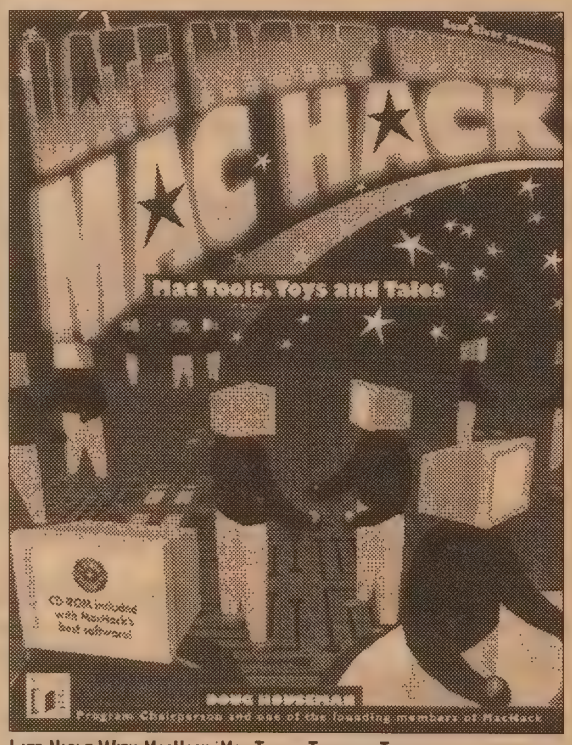
INTERNET STARTER KIT FOR MACINTOSH SECOND EDITION

Written By: Adam C. Engst
Published By: Hayden Books
List Price: $29.95
Reviewed By: Bill Gram-Reefer

If Infobahn and Autobahn are the same to you—someplace you'll never cruise along at breathtaking speed—then Adam C. Engst's update to his best-selling first edition will get you revved up and headed tire-screeching in the right direction toward the nearest on-ramp of the super-duper information highway. For once again Engst, editor of the popular online TidBITS, has delivered a truckload of concise and useful information within about one thousand pages, and included a high-density diskette with the (mostly) shareware software you'll need to hotwire your journey into cyberspace.

Like the first edition, the best part of this users' manual is the chapter on how to set up and run the licensed or shareware TCP-based Mac software that comes free on the diskette. This section also includes updated reviews and evaluations of top programs from the standards to the not-quite-there-yet concepts fresh from the skunk works. The FAQ (frequently asked questions) section on topics such as MacTCP, InterSLIP, and PPP will save you hours of headache. Also included are reports on online services, Mac BBS packages, and commercial software. The *Internet Starter Kit* also provides tips and tricks from the pros on mundane topics—like how to read a UUCP mail

INTERNET STARTER KIT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LATE NIGHT WITH MACHACK: MAC TOOLS, TOYS AND TALES

header—to truly inspired tinkering—like when a flamer goes on and on, just reply "you may be right!" Finally, the trunk is packed with *usable* appendices.

There is no upgrade path from the first edition. So if you have the first one, give it to a friend or the school's library, and get the new one for yourself. (Hayden Books, 201 W. 103rd. St., Indianapolis, IN 46290. 1-800-428-5331. Email: hayden@hayden.com)

LATE NIGHT WITH MACHACK: MAC TOOLS, TOYS AND TALES

Author: Doug Houseman
Published By: M&T Books
List Price: $29.95 (includes CD-ROM)
Reviewed By: Kevin Savetz

What happens when you shove a few dozen of the brightest hackers in a hotel for a few days; give them plenty of caffeine, computers, and electronic gadgetry; and tell them not to come out until they've done something interesting? The MacHack Conference. Each year, three hundred of the top Macintosh programmers meet for MacHack, an infamous gathering in which amazing things happen to the Macintosh computer.

Late Night With MacHack chronicles what happened at nine of these annual events of hackerdom. It does a fantastic job of showing us the culture of Mac hackers, the behind-the-scenes development of the Macintosh—and (best of all) the results of the work. This book tells of hundreds of fantastic tools and toys that have been developed at the MacHack conferences. Not only that, but it delivers most of the applications (many with source code) along with a look at the people who were at the events on one overstuffed CD-ROM. If you're a Mac person, you need this book.

The goodies in the book (and on the CD-ROM) range from the useful (programs to replace the Chooser and add hierarchical menus to System 7), the offbeat (such as instructions for controlling your computer via a TV remote control), and the downright weird (including the famous NetBunny and NetWarmer, a control panel for heating your coffee right from the Mac). There are also lots of nifty hacks for programmers as well as an explanation (but no source code) of software that makes the Macintosh operating system work on a Sega Genesis.

In addition to programs and source code, the CD-ROM contains 440MB of QuickTime movies. Most of these are from video taken at MacHack. Some are mundane walk-arounds at the event; others are hilarious excerpts from the awards ceremonies. (For example, one video clip is a demonstration of DylanTalk, a cool hack that would read the text of dialog boxes in the programmer's voice. This was a year or two before Apple included this type of capability as standard equipment on high-end Macs.) Other QuickTime movies include some Apple television commercials, cool rendered graphics, as well as clips of Dan Quayle making a fool of himself. I'm not too sure what that is doing there, but why not? From beginning to end, *Late Night With MacHack* conveys the essence of hacker ingenuity and fun. (M&T Books, a subsidiary of Henry Holt and Co., 115 W. 18th St., New York, NY 10011. 212/886-9200)

OS/2 2.11 UNLEASHED

Written By: David Moskowitz, David Kerr, et al.
Published By: SAMS Publishing
List Price: $39.95
Reviewed By: Lenny Bailes

If you're an OS/2 user and frustrated with IBM's sparse printed documentation, this book is for you. It is a huge compendium (more than twelve hun-

continued on page 250

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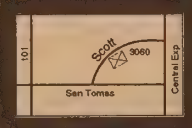

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Product Reviews

continued from page 170

dred pages) of OS/2 tips, tricks, and secrets, assembled by an OS/2 maven who tells you all the things IBM left out of the manuals. The book covers installation options, how to set up an OS/2 maintenance partition, *all* of the system options in config.sys (and how to tweak them for maximum performance). The section on the Workplace Shell shows a number of neat tricks you can do with the settings options: for instance, display multiple mini-views of the desktop while an application is running full-screen. You'd never know that you can do this from reading IBM's online help. The book also includes extensive sections on managing DOS and Windows applications, setting up and administering networks, working with multimedia, finding and installing SVGA display drivers, printing and font management, and the OS/2 productivity applets.

OS/2 Unleashed includes a CD-ROM disk with over 600MB of OS/2 shareware: alternate command shells, system utilities, communications programs, graphics and screen capture, multimedia, word processors, and REXX utilities. The last chapter is a 100-page listing of worldwide BBS numbers with profiles of each system by sysop, primary focus, and author's comments on each. (SAMS Publishing, Inc., 201 W. 103rd St., Indianapolis, IN 46290)

THE INTERNET RESOURCE QUICK REFERENCE

Written By: William Tolhurst and Mary Anne Pike
Published By: Que
List Price: $17.99
Reviewed By: Kevin Savetz

The *Internet Resource Quick Reference* is any publisher's dream: collect a bunch of free resources from the Internet, write a few pages of introductory material, send it to press, and sell it for $18 a pop.

Perhaps that wouldn't be so nauseating if the information therein was difficult to obtain. This book, however, is intended for those who are already familiar with the basics of operating the Internet (it says so right in the three-page introduction). If you're already familiar with the Internet, this information is not difficult to obtain—in fact, it is some of the most readily available stuff out there.

With that in mind, what is in this book?

It starts with the Usenet newsgroup list. You can get this list via FTP at ftp.uu.net in /networking/news/config/newsgroups.Z . Your savings: $5.63.

Next up is the list of publicly accessible electronic mailing lists. You can get it via FTP from rtfm.mit.edu in /pub/usenet/news.answers/mail/mailing-lists or on the Usenet newsgroup news.lists . Your savings: $9.00.

There's also the Special Internet Connections List, by Scott Yanoff. You can find out how to get that by fingering yanoff@csd4.csd.uwm.edu . You save: 70 cents.

And, there's the Inter-Network Mail Guide, also

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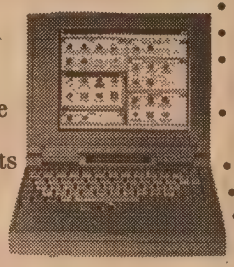

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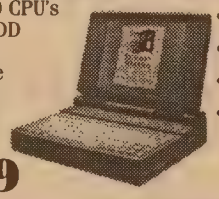

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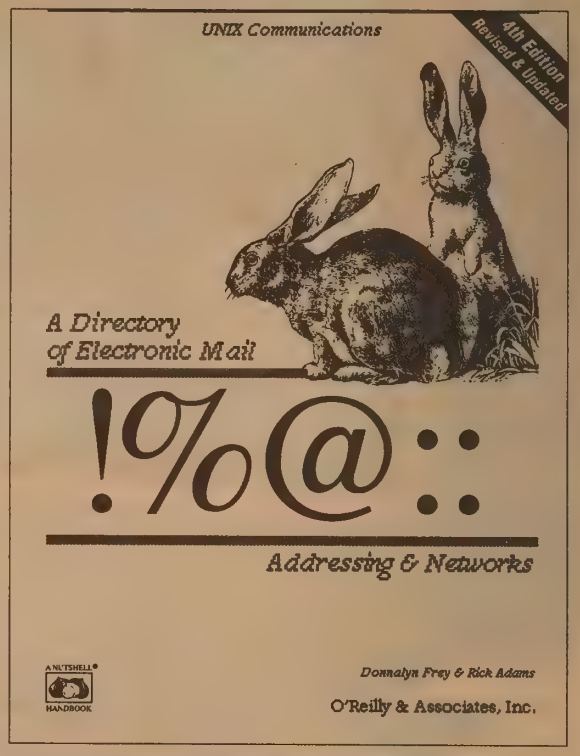
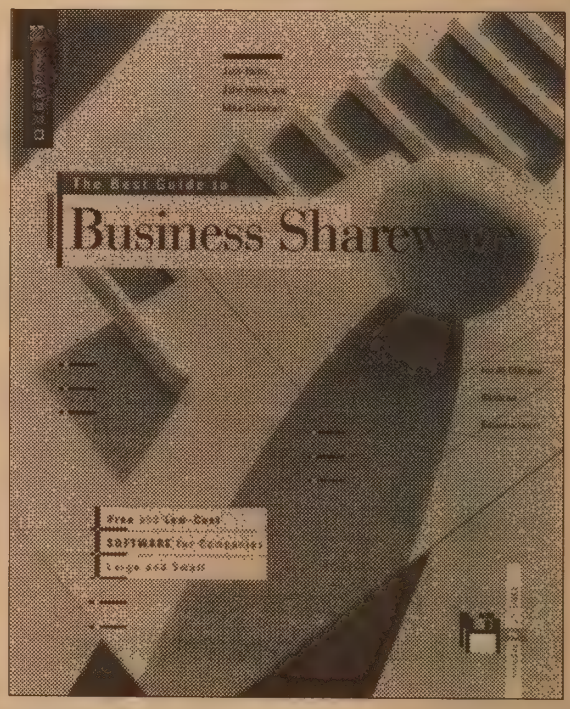


!%@:: A Directory of Electronic Mail Addressing & Networks



The Best Guide to Business Shareware

by Scott Yanoff. Also available via FTP at csd4.csd.uwm.edu in /pub/internetwork-mail-guide . Your savings: another 70 cents.

The only redeeming part of this book is the 46-page Host Resource Guide, a listing of a few good FTP sites, gopher sites, and special interest topics. This is the only thing that doesn't appear to have been filched from the Net, so I can't tell you where to get it for free. I will, however, save you that last $1.96 by pointing you to an even better online resource: John December's "internet-cmc" list, which you can get via FTP from ftp.rpi.edu in /pub/communications/internet-cmc.txt .

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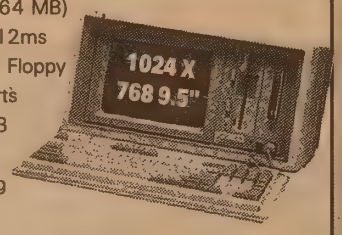

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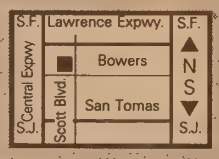

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The information in *The Internet Resource Quick Reference* is certainly worth $18, no doubt about that. Anyone with an Internet connection can get it for nothing, though, so save your money. (Que Corp., 201 W. 3rd. St., Indianapolis, IN 46290. 1-800-428-5331)

!%@::-A DIRECTORY OF ELECTRONIC MAIL ADDRESSING AND NETWORKS, FOURTH EDITION

Written By: Donnalyn Frey & Rick Adams
Published By: O'Reilly & Associates
List Price: $9.95
Reviewed By: Kevin Savetz

This tome easily gets the award for best title of an Internet book. *!%@::* (which I pronounce bang-per-cent-at-colon-colon) is a reference book of information related to electronic mail.

It starts with a short (20-page) introduction to electronic mail. The next 320 pages give information about 190 major networks that are somehow linked to Internet via electronic mail (ranging from sites you have heard of, like America Online, to ones you probably haven't heard of, such as the Hungarian Academic and Research Network). The next 270 pages are a comprehensive listing of email subdomains—listing zillions of company names and their corresponding domain names. (For instance, Apple Computer's domain name is apple.com .) The last few pages include a glossary and a list of electronic mail country codes.

Frankly, most of us don't need this information. Site administrators probably don't need this info, and all but the most curious Internet users can also do without it.

This book, which is thick and heavy and features hares (that's right, hares!) on the cover, looks like it should cost $25 or so. O'Reilly & Associates just lowered the price to $9.95, which is a more reasonable price given the material in it. (O'Reilly & Associates, Inc., 103 Morris St., Suite A, Sebastopol, CA 95472. 1-800-998-9938)

THE BEST GUIDE TO BUSINESS SHAREWARE

Written By: Judy Heim, John Heim, and Mike Callahan
Published By: Osborne McGraw-Hill
List Price: $34.95
Reviewed By: Lenny Bailes

Some people think that the golden days of shareware are gone forever, but this book provides a convincing argument to the contrary. In addition to a basic introduction to the shareware concept and some advice on how to prowl bulletin board systems, the book largely does your prowling for you. There are one-paragraph thumbnails of hundreds of productivity applications, DOS and Windows utilities, indexed

Product Reviews *continued...*

into appropriate chapter divisions. This isn't a rehash of five-year-old stuff that's grown stale in the current era of Windows. Programs like NeoPaint, Graphic Workshop, PC-Flow, FormGen, and others are as useful and powerful as many commercial applications. The review categories range from traditional word processor/spreadsheet/database packages, to project planners, accounting/payroll. Some of the DOS and Windows system utilities covered by the authors are particularly useful: antivirus software, Windows plug-in file managers, file viewers, data recovery, and diagnostic utilities—this is the area where shareware programmers really excel, often providing useful tools that eventually find their way into commercial packages distributed by corporate players. Two 1.4MB diskettes distributed with the book contain a sampling of basic utilities and a telecommunication package to let you do your own BBS prowling.

Coauthor Mike Callahan is a celebrated BBS junkie and shareware connoisseur—well-known in certain circles as "Dr. File Finder." He and the other two coauthors have assembled a volume that can save you many hours of searching for and testing the shareware cream of the crop. (Osborne McGraw-Hill, 2600 Tenth St., Berkeley, CA 94710)

TAKING FLIGHT—HISTORY, FUNDAMENTALS AND APPLICATIONS OF FLIGHT SIMULATION

Written By: Christopher Watkins and Stephen Marenka
Published By: M&T Books
List Price: $29.95
Reviewed By: Kevin Savetz

Flight simulators have always fascinated me. From the first time I played with Flight Simulator II on an Apple II (featuring chunky wire-frame buildings and runways) to the colorful, high-speed animated version that lives on my Mac today, the idea of flying through a simulated world is captivating. Flight simulation buffs will enjoy this book

Taking Flight—History, Fundamentals and Applications of Flight Simulation begins with a short history of (real) flight, and then takes off into a history of flight simulators. It focuses on military applications of flight simulation—"real" flight simulation—rather than the software toys I played with on the Apple computer. Next, the book gets serious, explaining concepts such as fluid mechanics, aerodynamic drag, propellers, rocket engines, and cockpit resource management. *Taking Flight* serves as a good introduction to the basics of flying in real life as well as in virtual space. These subjects can be a bit dry, but authors Watkins and Marenka have made them rather intriguing.

The bulk of the book looks at flight simulators themselves and the theory behind them. Again, the authors pull no punches in explaining concepts from polygon projection and antialiasing to hidden surface removal and simulation of controls and gauges. The accompanying disk includes source code for a simple flight simulation program for PCs and an explanation of how it works.

Although I am disappointed it deals almost entirely with high-end flight simulators rather than

continued on page 260

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MICROTIMES

Product Reviews

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more pedestrian ones (like on my Mac), *Taking Flight* provides a detailed look into the history, present and future, of flight simulation, heavy on theory but remarkably readable nonetheless. (M&T Books, a subsidiary of Henry Holt and Co., 115 W. 18th St., New York, NY 10011. 212/886-9200)

USENET: NETNEWS FOR EVERYONE

Written By: Jenny A. Fristrup
Published By: Prentice Hall
List Price: $24.95
Reviewed By: Kevin Savetz

Usenet: Netnews for Everyone, a guide to accessing and using Usenet newsgroups, promises to teach the reader how to "meet and communicate with others who share your interests" and "expand your personal and professional contacts." It only vaguely holds true to these promises.

As is too often the case with Internet books, *Usenet: Netnews for Everyone* combines a modicum of new information with gobs of easily obtained free material. Specifically, the book includes a decent (but short) introduction to Usenet, including info on its community and conventions. But the majority of the book is an enormous listing of Usenet newsgroups and the FAQs that live in each—information that can easily be found online. It also reprints several general Usenet introductions that are available online (for free).

The book doesn't cover some of the most essential basic information. It doesn't touch on how to find a service provider who will feed you Usenet, or how to use rot13 to decrypt text, or how to decode binary files that are so often posted to Usenet.

Unfortunately, the best part of the book is the briefest: a list of popular newsreaders (along with descriptions) and command summaries for three programs for reading news. If this book offered more of this type of information rather than rehashed online freebies, it would be worthwhile indeed. (Prentice Hall, 201 W. 103rd St., Indianapolis, IN 46290. 1-800-428-5331)

VIRTUAL PLAYHOUSE FOR MACINTOSH

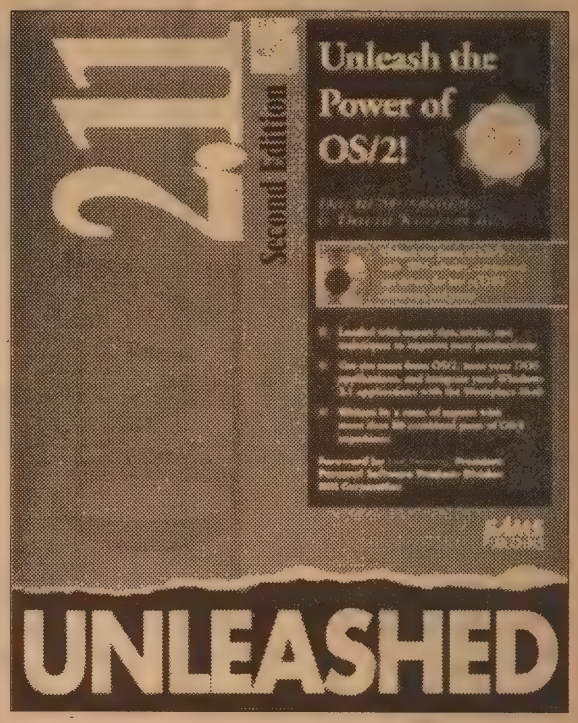
Written By: Jonathan Price
Published By: Hayden Books
List Price: $39.95
Reviewed By: Kevin Savetz

It's hard to categorize this book: the title, *Virtual Playhouse*, only hints at the breadth of topics covered within. Between the covers of this thick, nearly 800-page tome are hefty chunks of information about everything that's cool about the Macintosh and computing in the '90s.

Virtual Playhouse covers multimedia, animation, fractals, virtual reality, morphing, image processing, games, simulations, and a variety of other tools and toys. The core of the book is a CD-ROM overflowing with demonstrations and working programs for your Mac. The book explains in detail what's on the CD, what you can do with it, and why it's interesting.

You can find out how to create wild new animals using SimLife, explore the magic of Adobe Photoshop, wander three-dimensional landscapes with Virtus VR, and tweak your desktop design with Wallpaper. While the CD contains crippled versions of most of those commercial software packages, *Virtual Playhouse* provides plenty of useful working tools plus a glimpse into a variety of commercial software. It also reviews multimedia products that aren't on the disc.

After browsing the book, it's back to the disc for hours of fun with QuickTime, Macromedia Director,



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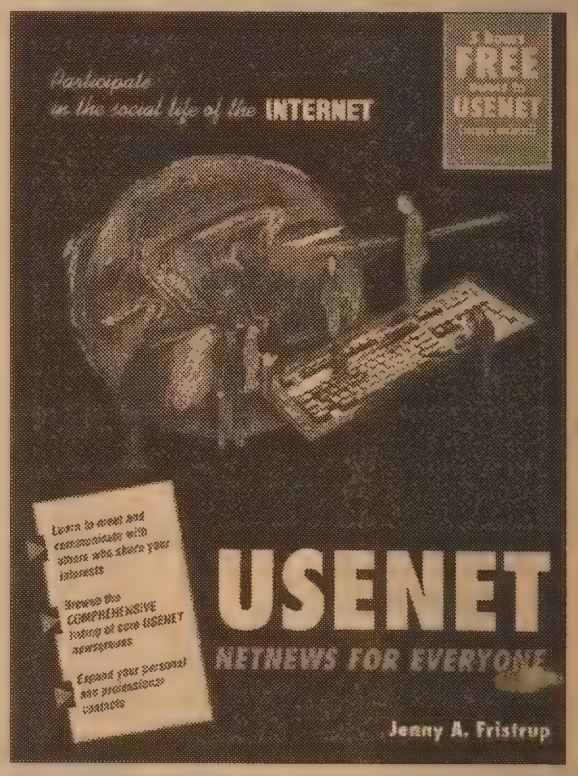

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THE VIRTUAL REALITY CASEBOOK

Edited By: Carl Eugene Loeffler and Tim Anderson
Published By: Van Nostrand Reinhold
List Price: $29.95
Reviewed By: Anna Couey

Perhaps now that the "Information Superhighway" has usurped our collective conscious with media hype, we can turn back more thoughtfully to ideas and implications of a technology that has slipped from the limelight and continued to evolve. If you've been wondering what ever happened to VR, or if you're working in the field and curious to know what others are designing, *The Virtual Reality Casebook* provides a refreshingly down-to-earth and thought-provoking survey of virtual reality developments around the world.

The editors are both from the STUDIO for Creative Inquiry at Carnegie Mellon University, which develops virtual reality applications, in particular networked VR. Loeffler's background spans conceptual, media, and electronic arts; Anderson is an art librarian. The *Casebook* reflects their interests—most of the contributors are artists and researchers developing virtual reality projects. The book also includes texts by designers of educational environments and applications for people with disabilities; business applications are at a minimum. It is a design and content book written by practitioners, rather than a technical or purely academic one. You will find discussions of content, the role of agents, how to create suspension of disbelief, and whether the body is obsolete. The *Casebook* is readable and browsable; it contains some thirty-five texts, most no longer than a few pages.

Those who follow VR may be surprised not to see essays by Jaron Lanier, Brenda Laurel, Scott Fisher, and others who are generally viewed as leading practitioners and theorists in the field (though they are referred to in many of the texts). The history of the field and description of the technology involved is rather skimpy. At times, differences between virtual reality technology and computer networks blur in discussions of civil liberties or ethical implications or social dynamics in "cyberspace." But the *Casebook* has no shortage of interesting projects and ideas—as well as surveys of activity in Japan, Germany, and Nordic countries, an extensive annotated bibliography of literature (including online forums discussing virtual reality), and a contact list for companies developing VR applications and tools. It's well worth the price. (Van Nostrand Reinhold, 115 Fifth Ave., New York, NY 10003. 212/254-3232) ■